

The Cleanroom Envelope – Architectural Components

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Abstract:

The cleanroom itself is the envelope that separates the clean area (manufacturing) from the less clean (maintenance) space. This involves the interstitial support, the framework above that supports the ceiling, the ceiling system, the wall panels, and the raised flooring. It is important early to understand the facility requirements and layout of the cleanroom, that is the air management scheme. Whether the facility is bay and chase or ballroom, the components are not much different. The direction of airflow and the how the filters are installed, whether fan filter units, plenum filters, or ducted filters, will not affect the cleanroom components. The important element is to understand the owner needs, the owner's budget, and the operational need date of the cleanroom. A wide spectrum of designs, cleanroom components, and approaches of what needs to be done exists. But ultimately manufacturing cannot begin until the cleanroom itself is completed.